

08/38
Work Order ID 161740

Tuesday, May 23, 2017 9:33:59 AM

161740

Page 1

Item ID: 647.7810

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Bracket A

Start Date: 6/1/2017 Start Qty: 400

Cust Item ID:

Required Date: 6/10/2017 Req'd Qty: 400

Customer:

Reference:

Approvals: Process Plan: DAS 21 Date: MAY 24 2017 Tooling: _____ Date: _____
QC: 9-88 Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
647.7800	A

100

0.00

100

BAND SAW

Bandsaw

Memo

0.25

Jeaspa Bandsaw

Cut Blank at 10.313"

6 0 DAS 44 9-89 17-06-29

110

1.34

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

1.53

HAAS CNC vertical machine #1

1-Machine per folio FB408

DWG REV: A

FOLIO REV: N/C

2- deburr and break all sharp edges

6 0 DAS 44 9-89 17-06-29

17-07-02

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 161740

Tuesday, May 23, 2017 9:33:59 AM

161740

Page 2

Item ID: 647.7810 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bracket A
 Start Date: 6/1/2017 Start Qty: 14.00 ***4*** Cust Item ID:
 Required Date: 6/10/2017 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.40				6	0		17-07-02.
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.80				6	0		DAS 49 9-89 17/07/03
140 *140* Outsource4 Outsource process - Anodize	Outsource process-Anodize per QSI017 4.1.10.1 Memo Issue P/O to ATG : <u>37017</u> 1- Black Anodize as per Dwg 647.7800 2- PRIME AS PER DWG, SEE NOTE #2 Certification of Comformity is required	0.00 720.00				6			17/07/12.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :						
Misidentified	☐	Past Due	☐							

Work Order ID 161740

Tuesday, May 23, 2017 9:33:59 AM

161740

Page 3

Item ID: 647.7810 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Bracket A
 Start Date: 6/1/2017 Start Qty: 14.00 *4* Cust Item ID:
 Required Date: 6/10/2017 Req'd Qty: 4.00 *4* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Receive & Inspect for Damage & Mat'l Certs	0.00							
150									
Packaging	Memo	0.08							
Packaging									
155	QC5- Inspect part completeness to step on W/O	0.00							
155									
QC	Memo	0.80							
Quality Control	2.2 mils thickness primer								
180	Identify as per dwg & Stock Location	0.00							
180									
Packaging	Memo	0.04							
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***								

6XSPD-7-25

6

DAS
38
JUL 26 2017

6

DAS
6
9-89

JUL 16 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By _____		
							Lead hand / Supervisor Approval Verification _____		
							QC / QA Coordinator Approval _____		

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____						
Misidentified	☐	Past Due	☐							

Work Order ID 161740

161740

Page 4

Tuesday, May 23, 2017 9:33:59 AM

Item ID: 647.7810

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Bracket A

Start Date: 6/1/2017 Start Qty: 4.00 *4*

Cust Item ID:

Required Date: 6/10/2017 Req'd Qty: 4.00 *4*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.40

Quality Control

17/7/28 J

DAS
21
9-89

JUL 26 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
				OTHER : ☐							

Picklist Print

Tuesday, May 23, 2017 9:33:58 AM

Page 1

Work Order ID: 161740

161740

Parent Item: 647.7810

647 7810

Parent Item Name: Bracket A

Start Date: 6/1/2017

Required Date: 6/10/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev: A RQ 15.08.06 Verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B6.000X0.250		Purchased	No			100	f	5.7820	0.859	3.616842			
M7075T6B6 000X0 250													
7075-T6 BAR 6.000" X 0.250"													

DAS
44
9-89

17-06-29

Location

Loc Qty

Loc Code

MAT005

5.782

M133426

3.083

M136103

2.699

137887

5.25

Did not pull mat'l's

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date: _____		Step #: _____		QTY Effective: _____			MRB (QSI042) Approval _____		
Description Work Order Deviation				Disposition				Completed By _____	
								Lead hand / Supervisor Approval Verification _____	
								QC / QA Coordinator Approval _____	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER: _____									

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
NC	LAST PROTOTYPE RELEASE: P92		NC
NC	INITIAL RELEASE	7/2/14	P. BRAVO
A	INCORPORATED TCH 63128, 64487, & 63528	6/3/14	P. BRAVO

NOTES:

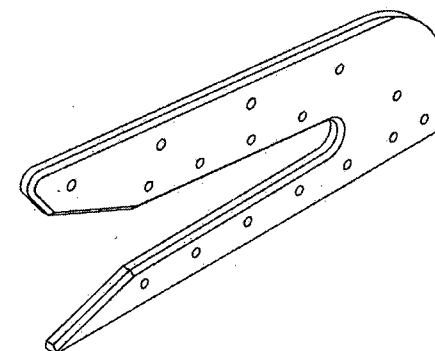
- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH IAW MPP-172 SECTION 3.3 & 4.3.
3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 161740 M-5
170524

	647.7823	CROSS BRACKET AFT	△	△
	647.7822	EYE BOLT FITTING RH	△	△
	647.7821	EYE BOLT FITTING LH	△	△
	647.7820	CROSS BRACKET AFT	△	△
	647.7819	CROSS BRACKET FWD	△	△
	647.7818	MOUNTING CHANNEL	△	△
	647.7817	AFT BRACKET	△	△
	647.7816	AFT BRACKET	△	△
	647.7815	FORWARD BRACKET	△	△
	647.7814	FORWARD BRACKET	△	△
	647.7813	CENTER PLATE LOWER	△	△
	647.7812	CENTER PLATE UPPER	△	△
	647.7811	BRACKET B	△	△
	647.7810	BRACKET A	△	△
F/N	PART #	DESCRIPTION	MAT'L	SPEC
QTY	PARTS LIST			
NEXT ASSY (S)	ORIGINAL DATE 11-03-08 DRAWN BY J. ANDERSON (P. BRAVO) DRAWING APPROVAL P. BRAVO 12-01-08 CONTRACT NO.			 DART AEROSPACE APICAL INDUSTRIES, INC. DBA DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-6300
647.7300	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 DECIMALS 3 DECIMALS ANGLES ± .5°			
		SIZE CAGE CODE DWG. NO. REV.	REV.	
		B 07M26 647.7800	A	
		SCALE NONE	SHEET 1 OF 10	

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647.7810
647.7811 OPPOSITE

TAG	X LOC	Y LOC	SIZE
A1	9.092±.002	3.332±.002	Ø.201 THRU
A2	6.904±.002	3.083±.002	Ø.201 THRU
A3	4.720	2.835±.002	Ø.201 THRU
B1	7.300±.002	.397±.002	Ø.177 THRU
B2	7.203±.002	2.369±.002	Ø.177 THRU
B3	6.050±.002	.415±.002	Ø.177 THRU
B4	5.961±.002	2.228±.002	Ø.177 THRU
B5	4.800±.002	.433±.002	Ø.177 THRU
B6	4.719±.002	2.088±.002	Ø.177 THRU
B7	3.550	.450	Ø.177 THRU
B8	3.476	1.947	Ø.177 THRU
B9	2.575	2.475	Ø.177 THRU
B10	2.380	.400	Ø.177 THRU
B11	1.250	.400	Ø.177 THRU
B12	1.160	1.220	Ø.177 THRU
B13	.500	.400	Ø.177 THRU

647.7810 SHOWN
647.7811 OPPOSITE

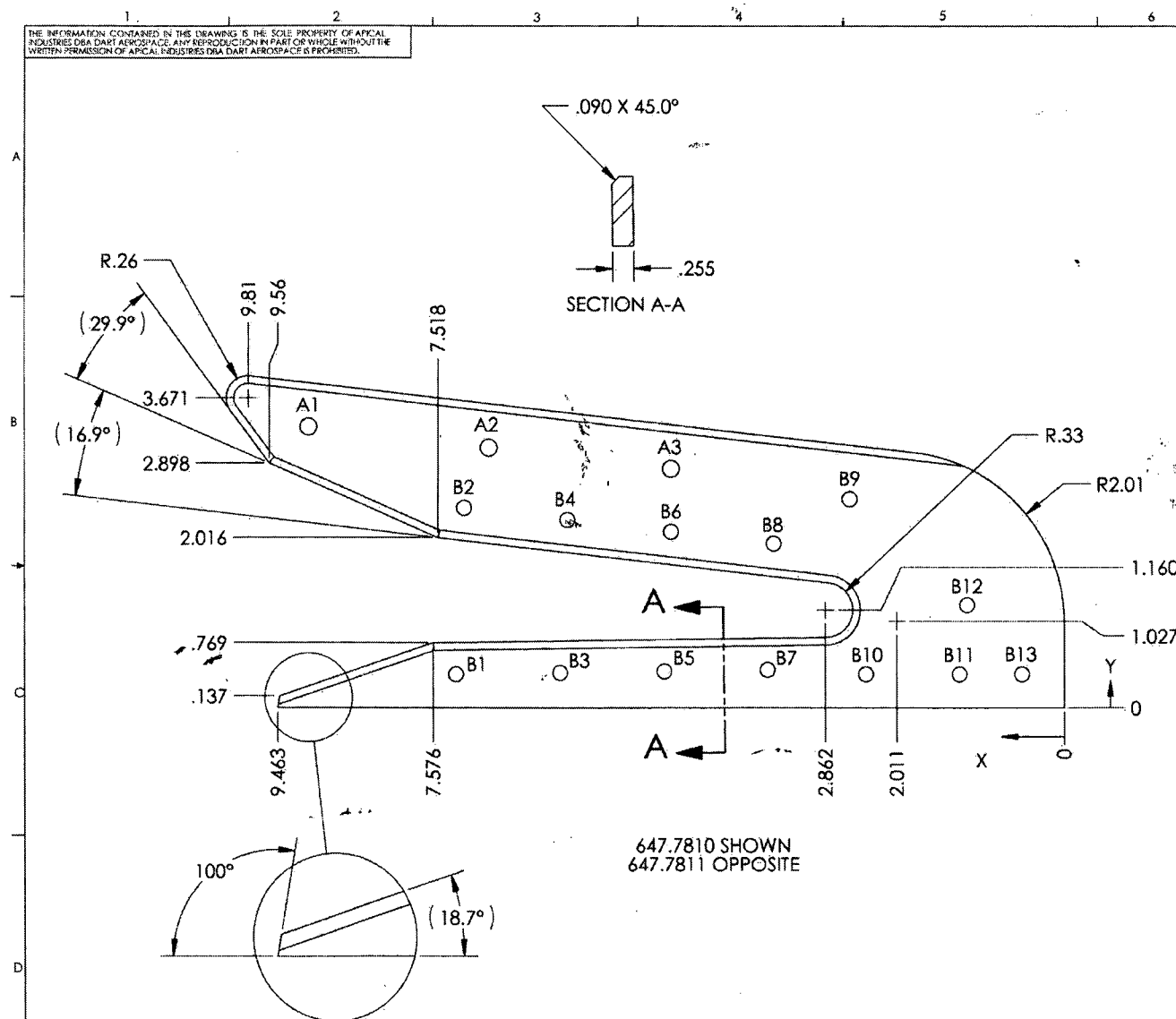
FORMAL DATE
11-05-09
DRAWN BY
E. ANDERSON P. BRAVO
DRAWING APPROVAL
10/1/09
CONTRACT NO.

DART 3030 ENTERPRISE CT., SUITE A
AEROSPACE VISTA, CA 92081
APICAL INDUSTRIES INC. (760) 724-5300
DBA DART AEROSPACE

BRACKET

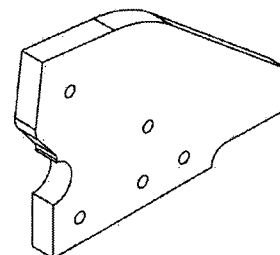
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ROUNDS
ANGLES ± .5°

SHEET 2 OF 10
SCALE NONE
REV. A
647.7800
07M26

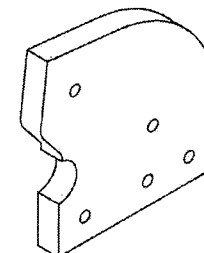


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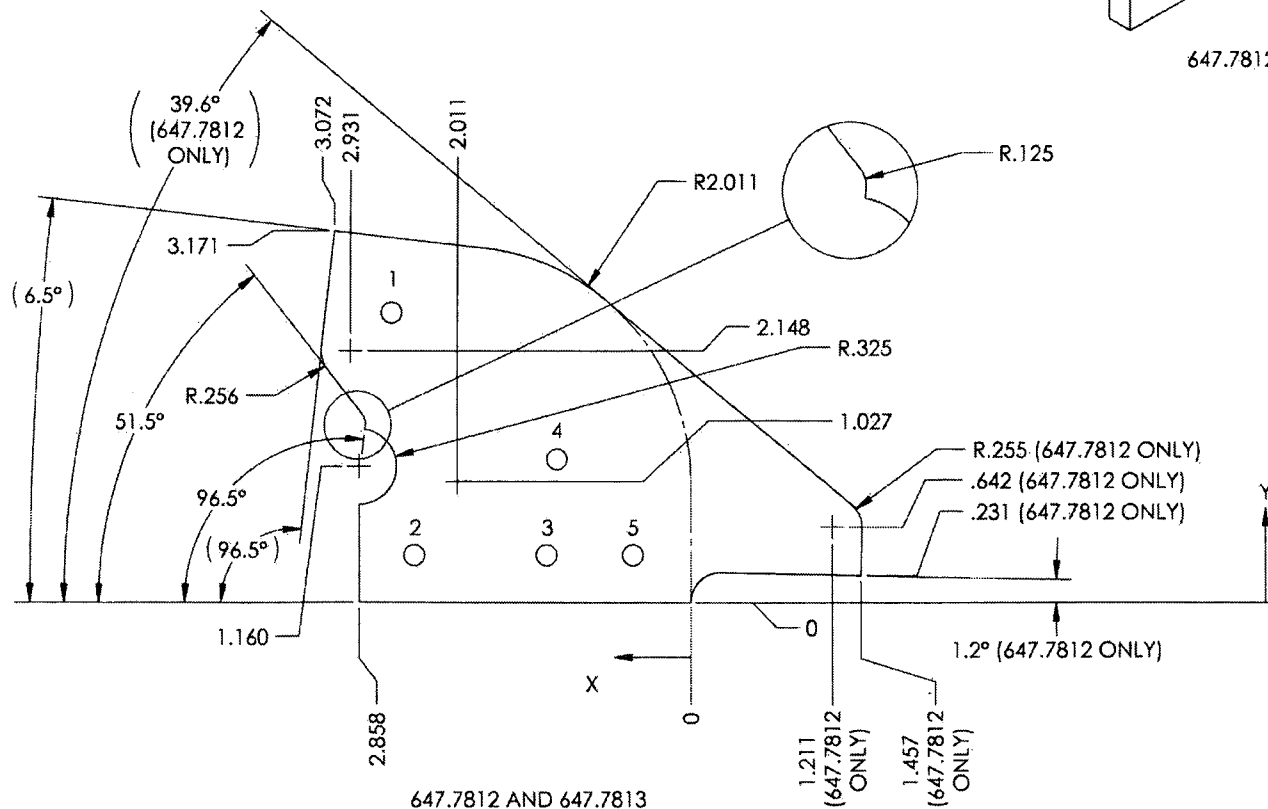
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2	2.380±.002	.400±.002	Ø.177 THRU
3	1.250±.002	.400±.002	Ø.177 THRU
4	1.160±.002	1.220±.002	Ø.177 THRU
5	.500±.002	.400±.002	Ø.177 THRU



647.7812

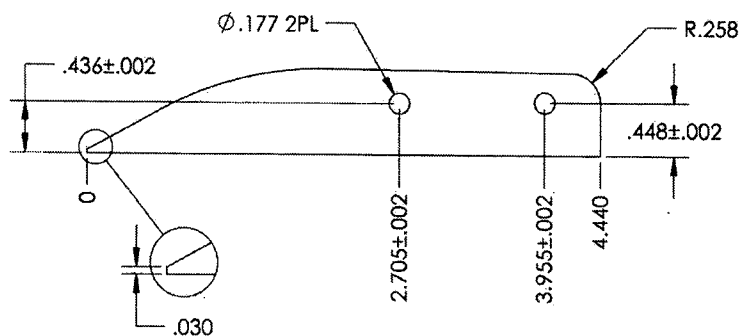
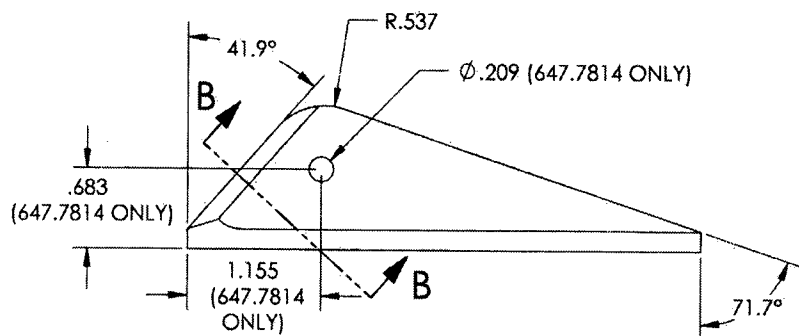
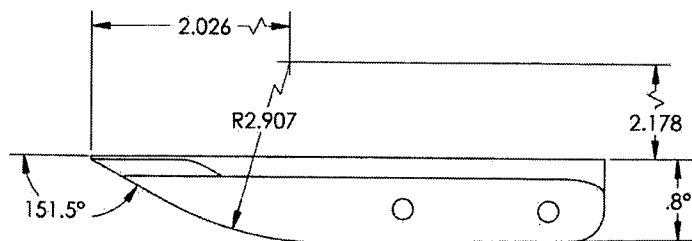


647.7813

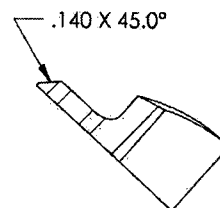
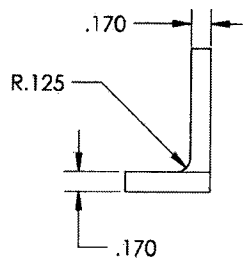


ORIGINAL DATE: 11-05-07		DART 3030 ENTERPRISE CT., SUITE A	
DRAWN BY: CHECKER		VISTA, CA. 92081	
E. ANDERSON / R. BRAY		(760)-724-5300	
DRAWING APPROVAL: P. BRAY		APICAL INDUSTRIES INC. DBA DART AEROSPACE	
CONTRACT NO.		BRACKET	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	SHEET 3 OF 10		
2 PLACES DECIMALS .01	SCALE: NONE		
3 PLACES DECIMALS .001			
ANGLES: 5°			

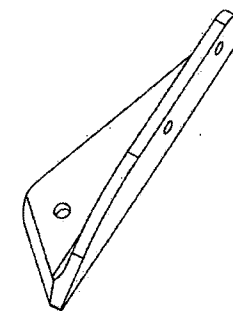
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



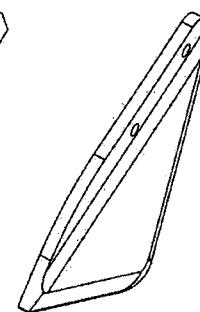
647.7814 SHOWN
647.7815 OPPOSITE



SECTION B-B



647.7814

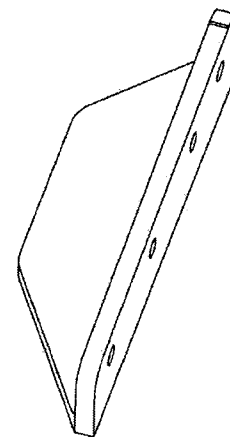
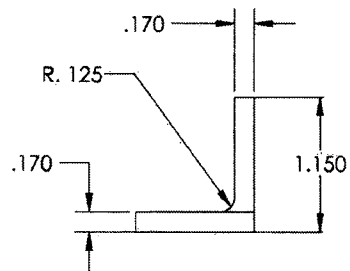
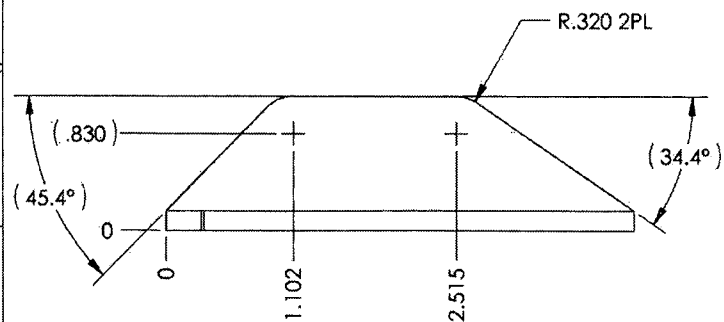
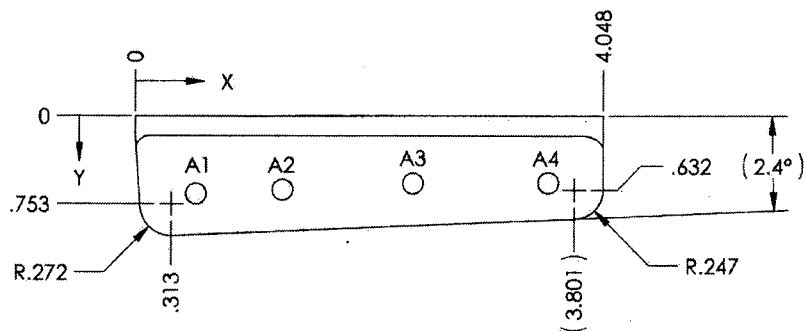


647.7815

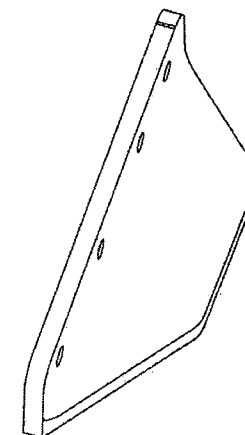
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.2°		SHEET 4 OF 10	
DATE	11.05.09	DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY	CHECKER	BRACKET	
E. ANDERSON	J. BRAYO	DWG. NO. 647.7800	
DRAWING APPROVAL		REV. A	
P. BRAYO		SCALE NONE	
DATE			
CONTRACT NO.			

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TAG	X LOC	Y LOC	SIZE
A1	.527±.002	.666±.002	Ø.177 THRU
A2	1.276±.002	.631±.002	Ø.177 THRU
A3	2.404±.002	.578±.002	Ø.177 THRU
A4	3.576±.002	.573±.002	Ø.177 THRU



647.7816

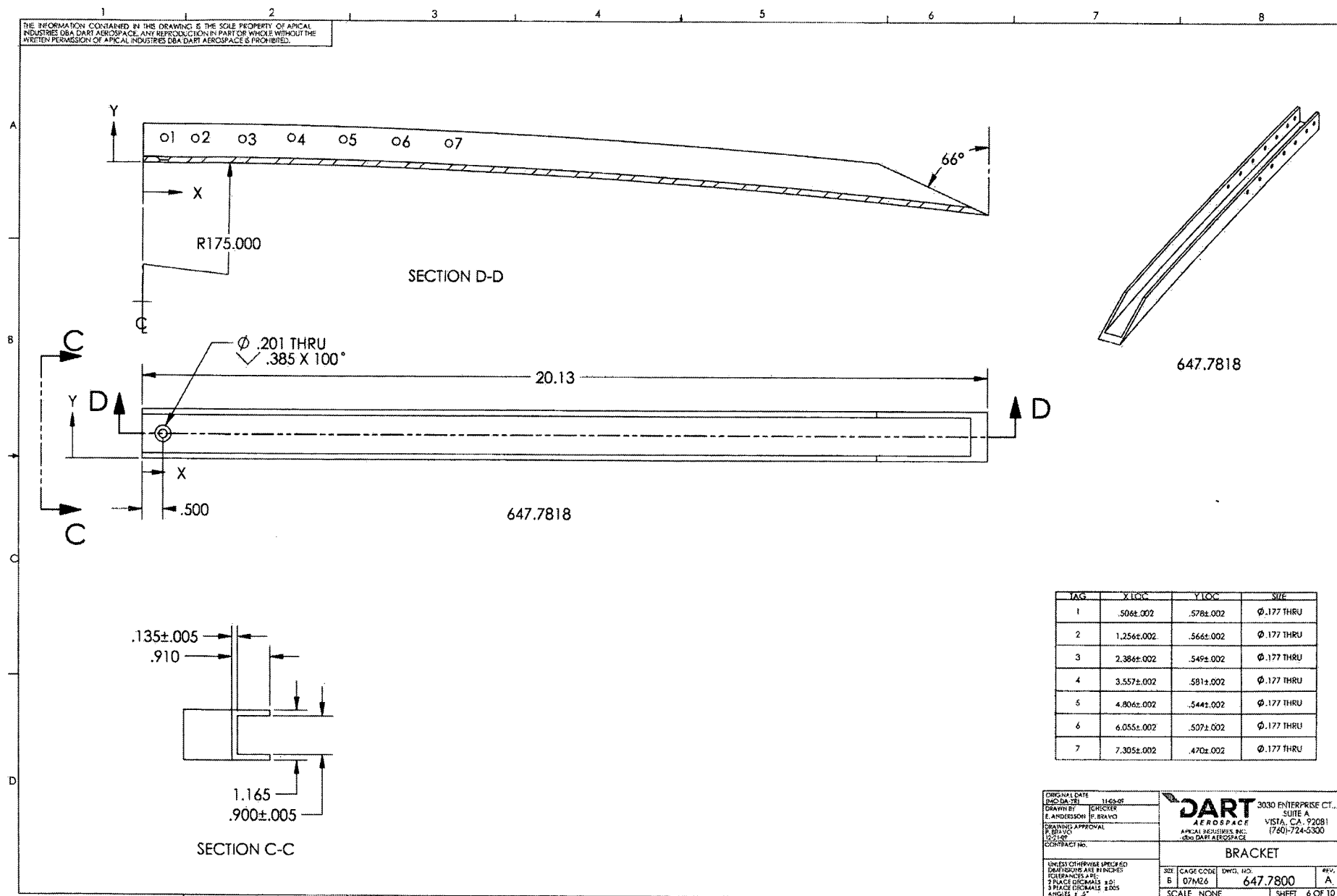


647.7817

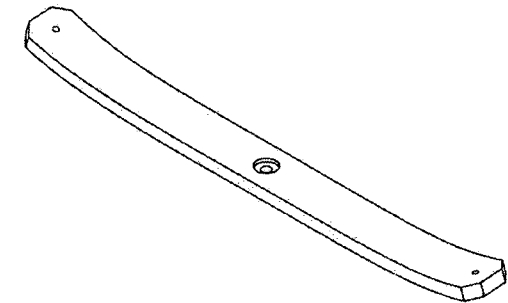
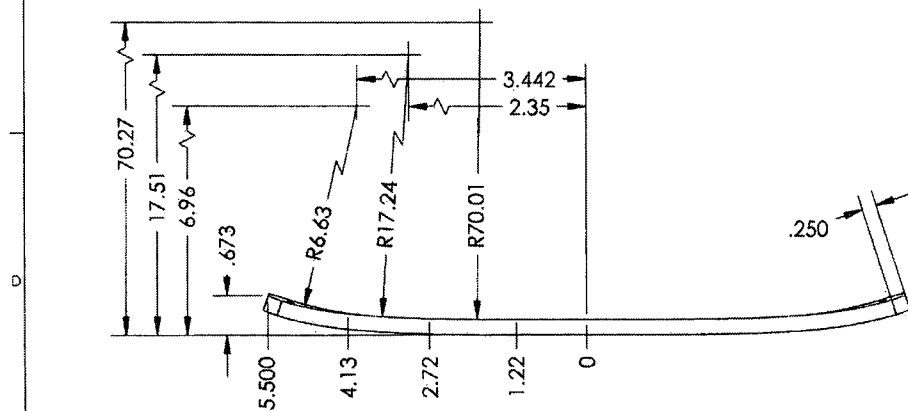
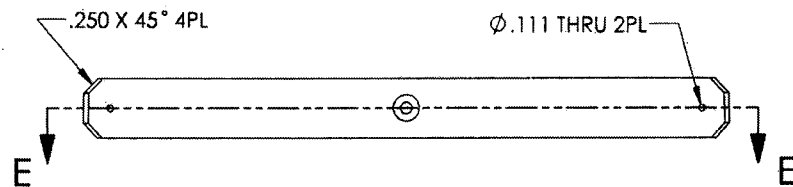
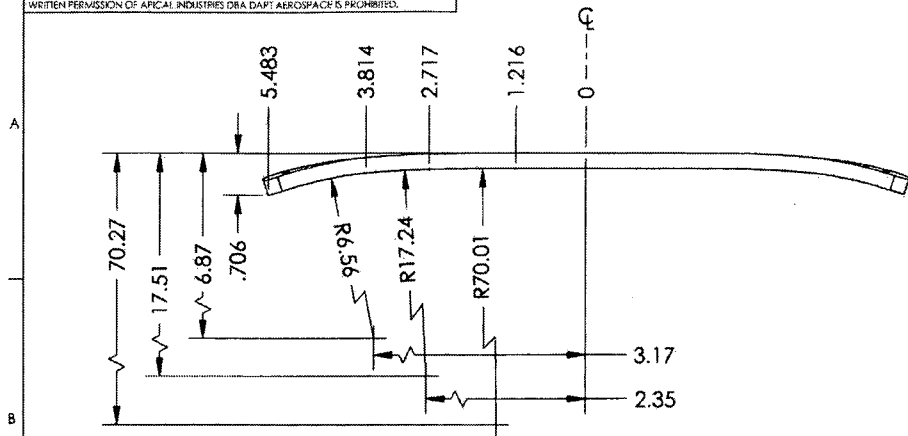
647.7816 SHOWN
647.7817 OPPOSITE

ORIGINAL DATE 11-09-00		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY L. ANDERSON	CHECKED J. BLAVO	DART AEROSPACE APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL J. BLAVO			
CONTRACT NO.		BRACKET	
UNITS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.5°		SIZE B Q7M15 SCALE NONE	DWG. NO. 647.7800 SHEET 5 OF 10

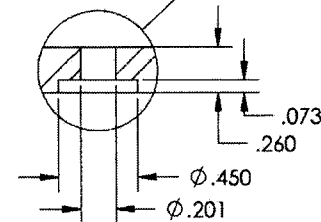
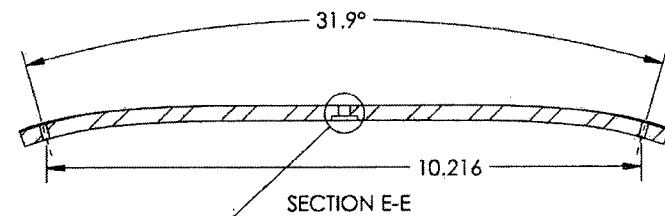
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THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DDA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DDA DART AEROSPACE IS PROHIBITED.



647.7819

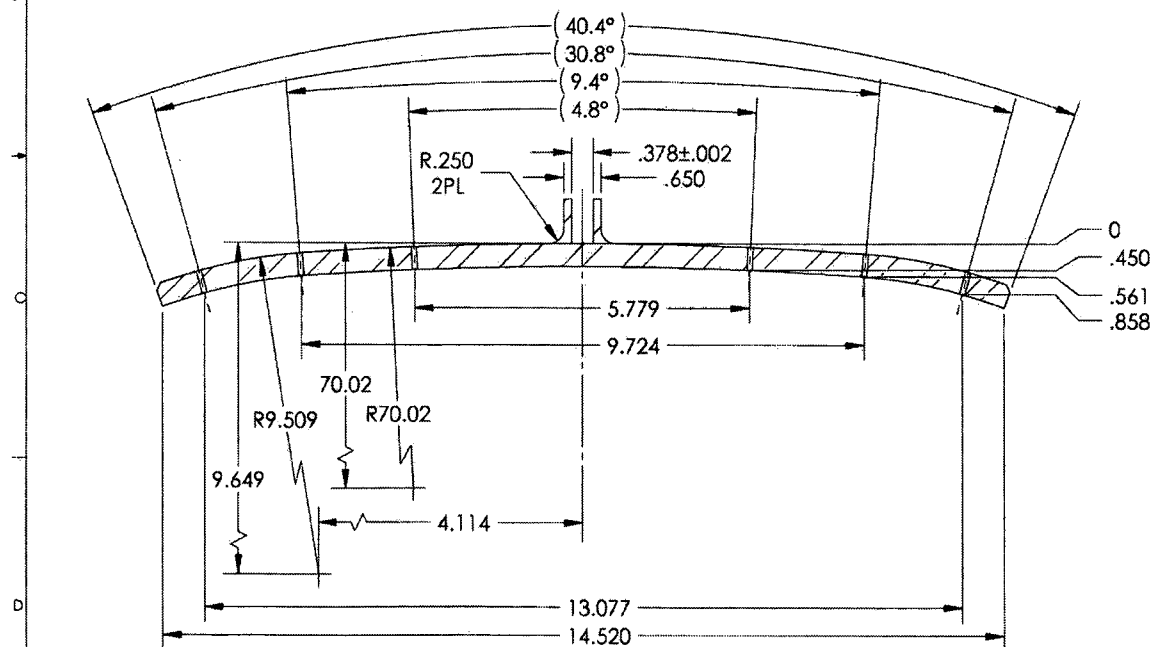
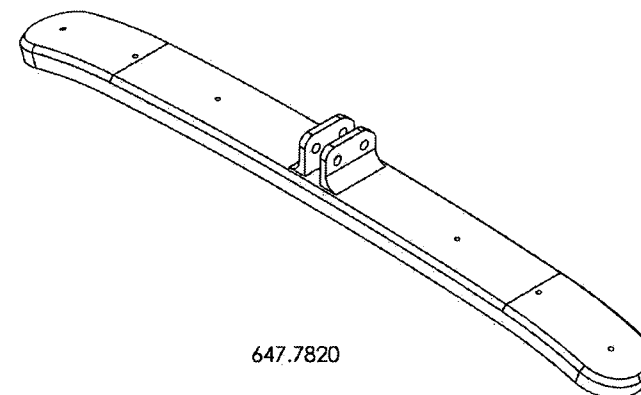
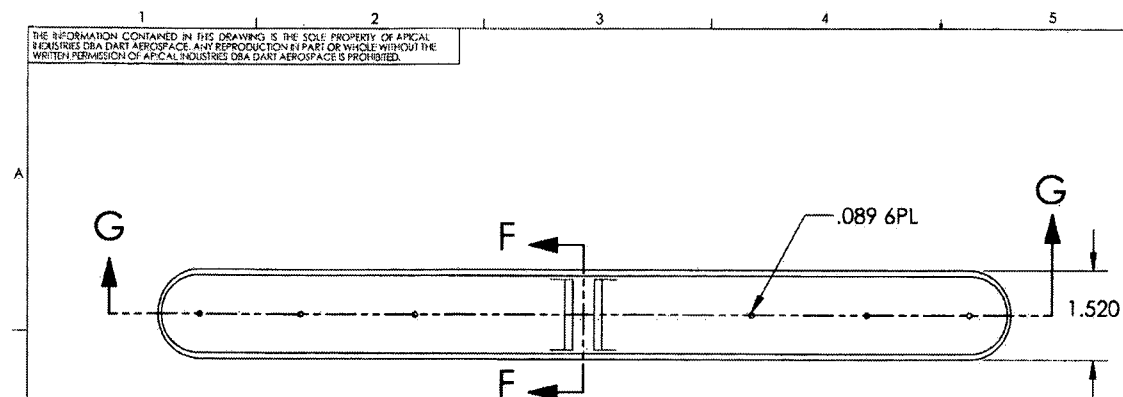


ORIGINAL DATE (MM-DD-YY)		11-05-09	
DRAWN BY		C. HESTER	
CHECKED BY		J. BRAY	
DRAWING APPROVAL		P. BRAY	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS .01 ANGLES ± .5°			
TITLE	CAGE CODE	DWG. NO.	REV.
B	07M26	647.7800	A
SCALE		NONE	
		SHEET 7 OF 10	

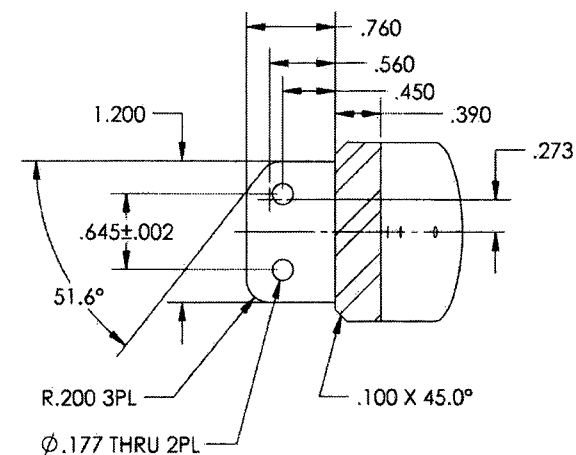
DART 3030 ENTERPRISE CT.,
SUITE A
AEROSPACE VISTA, CA. 92081
APICAL INDUSTRIES, INC.
(760) 724-5300

BRACKET

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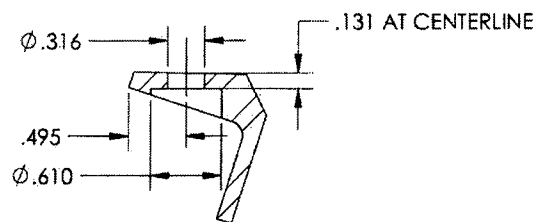
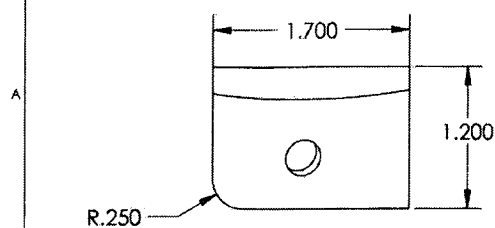
SECTION G-G



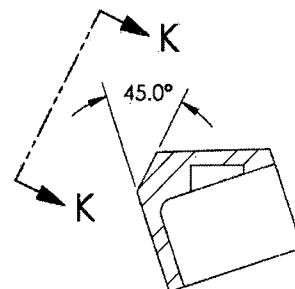
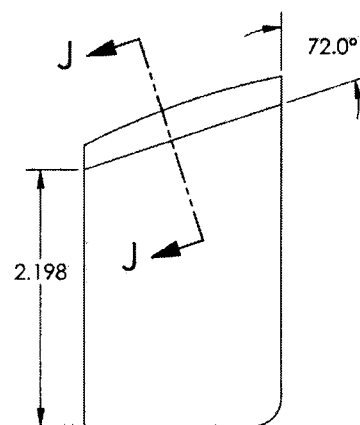
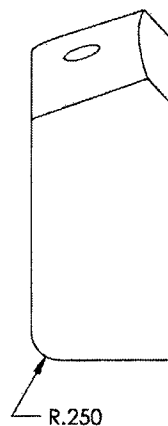
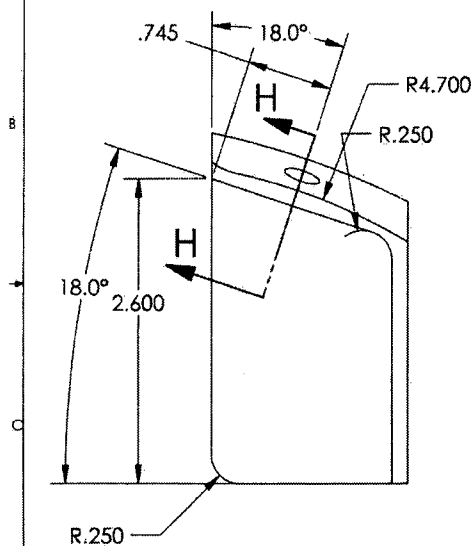
SECTION F-F

ORIGINAL DATE 11-05-09	 DART AEROSPACE AERIAL INJECTION RESIN (NOT EMIT AEROSOL)	3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY J. CHICKER			
DESIGNED BY J. BRAY			
DRAWING APPROVAL J. BRAY			
CONTRACT NO.			
TENSILE COMPRESS STRENGTH DIMENSIONS ARE IN INCHES 1. PARTS ARE 1.00 2. PLACE DECIMALS 2.00 3. PLACE DECIMALS 8.00 4. AMPLIF. 1.00			
SEE	SCALE CODE D701A16	DIMG. NO. 647.7800	REV. A
SCALE NONE		SHEET 8 OF 10	

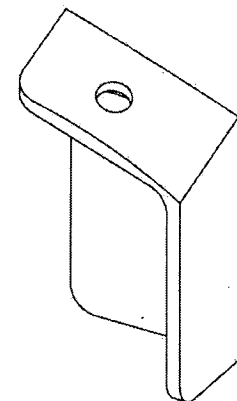
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



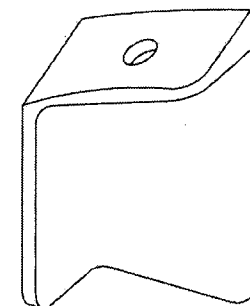
SECTION H-H



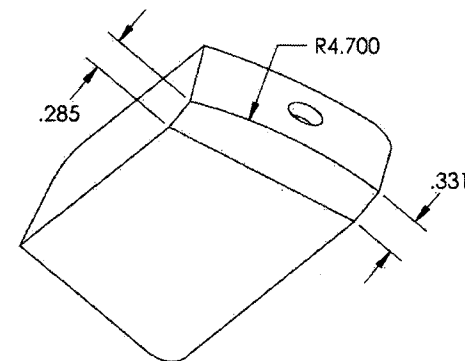
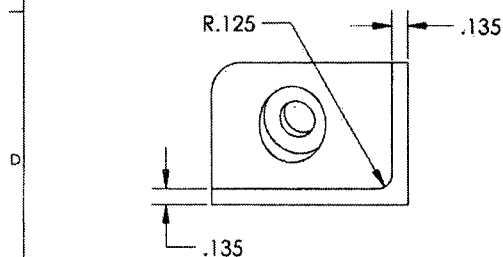
SECTION J-J



647.7821



647.7822



SECTION K-K

ORIGINAL DATE (MM-DD-YY) 11-25-09 DRAWN BY E. BRAVO DRAWING APPROVAL P. BRAVO 10-21-09 CONTRACT # 00	 DART AEROSPACE 3030 ENTERPRISE C1 SUITE A VISTA, CA 92081 (760)-724-5330 AERCA INDUSTRIES, INC. 400 LARK AVE. AEROSPACE												
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1. SURFACE FINISHES: #1 2. HOLE FINISHES: #1 3. PLATE DIMS: .0005	BRACKET <table><tr><td>SIZE</td><td>CAGE CODE</td><td>QTY. NO.</td><td>REV</td></tr><tr><td></td><td>070766</td><td>647.7800</td><td></td></tr><tr><td>SCALE</td><td>1:1</td><td>SHEET</td><td>9 OF 10</td></tr></table>	SIZE	CAGE CODE	QTY. NO.	REV		070766	647.7800		SCALE	1:1	SHEET	9 OF 10
SIZE	CAGE CODE	QTY. NO.	REV										
	070766	647.7800											
SCALE	1:1	SHEET	9 OF 10										

647.7823

647.7823

DETAIL W

DETAIL W

R.760
4PL

SECTION Y-Y

R.760
4PL

SECTION Y-Y

ORIGINAL DATE (MO-DA-YR) 11-03-00	
DRAWN BY E. ANDERSSON	CHECKER P. BRAVO
DRAWING APPROVAL P. BRAVO 12-21-02	
CONTRACT 146	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS $\pm .01$
3 PLACE DECIMALS $\pm .005$
ANGLES $\pm 5^\circ$

DART 3030 ENTERPRISE CT.
SUITE A
AEROSPACE VISTA, CA. 92081
AIRCRAFT INDUSTRIES, INC. (760) 724-5300

BRACKET

SHEET B	CAGE CODE 07M26	DWG. NO. 647.7800	REV A
SCALE NONE		SHEET 10 OF 10	

SCALE	NONE	SHEET	10 OF 1
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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO37017

Purchase Order Date 7/12/2017

PO Print Date 7/19/2017

Page Number 5 of 9

Order From :

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

VC-ATG001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613-446-4544

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

VENDOR'S TRUCK

Buyer

Diane Baker

Customer POID

Customer Tax #

Terms

Currency

FOB

10127-2607

Net 30

CAD

FCA - (Free Carrier)

9 161740 647.7810 Bracket A Rev. A 7/21/2017
Yes
7/21/2017

6.00 \$14.50 \$87.00

AS PER MPP-172 SECTION 2.1,
HARD ANODIZE COLOR BLACK, PER IAW MIL-A-8625 TYPE 3 CLASS 2
AS PER MPP-172 SECTION 4.2,
PRIME AS PER IAW MIL-PRF-23377 TYPE I CLASS N

SP17-7-25

DAS
38
-89

Line Total: \$87.00

10 162403 D2348 Wearplate (Key Way) REV. C 8/14/2017
Yes
8/14/2017
FINISH AS PER DWG D2055 REV. D, BLACK ANODIZE AS PER MIL-A-8625F TYPE II CLASS 2

20.00 \$0.95 \$19.00

Line Total: \$19.00

11 159046 D5274-1 Step Extrusion REV. A 8/14/2017
Yes
8/14/2017
FINISH AS PER DWG D2055 REV. D, BLACK ANODIZE AS PER MIL-A-8625F TYPE II CLASS 2

2.00 \$55.00 \$110.00

PO Instructions: PRIMER IS SUPPLIED BY DART

Note:

7/19/2017

